

Cooper Lighting Solutions Photometric Lab
1121 Highway 74 South
Peachtree City, GA 30269



Scaled data based on original data using
LM-79-2019 Approved Method: Electrical and Photometric Measurements of Solid-
State Lighting Products

Test Report Prepared for
Cooper Lighting Solutions

Brand: CORELITE

Report Number: P935010

Luminaire Tested: SQ4-FA-100U-050D-830-1D-UNV-STD-W-4

Issue Date: 12/17/2024

Test Information

Test Method: LM-79-2019
Report Number: P935010
REPORT IS A COMBINATION OF REPORTS P933738 AND P933786
Test Lab: INNOVATION CENTER
Issue Date: 12/17/2024
Manufacturer: COOPER LIGHTING SOLUTIONS
Product Line: CORELITE
Catalog Number: SQ4-FA-100U-050D-830-1D-UNV-STD-W-4
Description: CORELITE SQ4 SUSPENDED INDIRECT LED LUMINAIRE WITH Asymmetric Frosted Continuous I
Lens
Light Source: -
Ballast/Driver: -

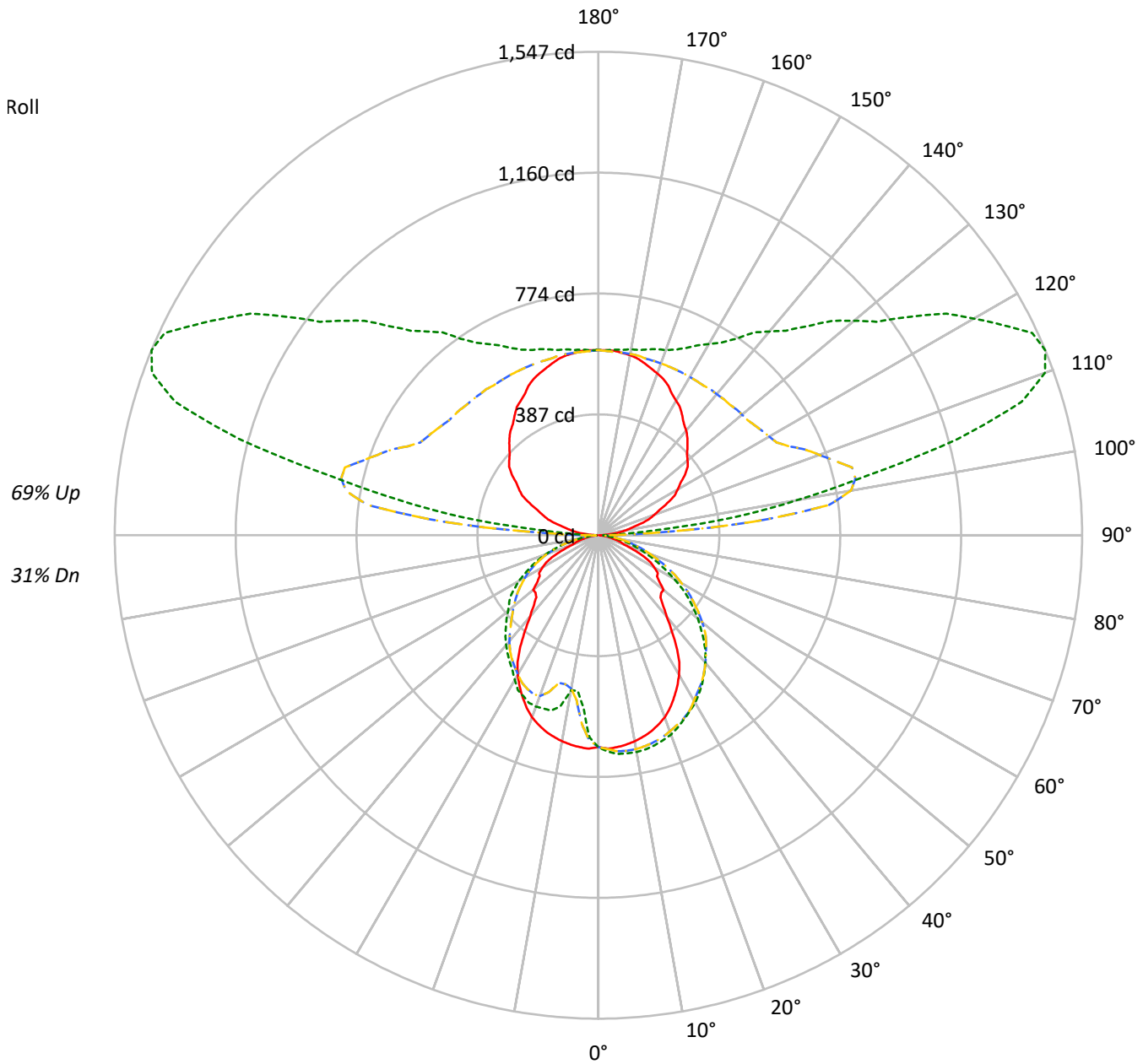
Summary

Lumens per Lamp: N/A
Luminaire Lumens: 5600.3 lumens
Efficiency: N/A
Efficacy: 135.9 lumens/watt
Spacing Criteria (0/90/45): 1.14 / 1.26 / 1.36
Luminous Opening: Rectangular w/ Sides (W: 0.29' x L: 4' x H: 0.1')
CIE Type: Semi-Indirect

Input Watts (W): 41.2
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 24 FT

TEST NUMBER: P935010
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Luminous Intensity Polar Plot



— 0°-180° - - 45°-225° - - - 90°-270° - · - 135°-315°



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COEFFICIENT OF UTILIZATION - ZONAL CAVITY METHOD:

RF	20				20				20				20				20				20
RC	80				70				50				30				10				0
RW	70	50	30	10	70	50	30	10	50	30	10	50	30	10	50	30	10	50	30	10	0
RCR																					
0	103	103	103	103	92	92	92	92	73	73	73	55	55	55	39	39	39	39	39	39	31
1	94	89	86	82	84	81	77	75	64	62	60	49	47	46	35	34	33	35	34	33	27
2	85	78	72	67	76	70	65	61	56	53	50	43	40	38	30	29	28	30	29	28	22
3	78	69	62	56	70	62	56	51	49	45	42	38	35	32	27	25	24	27	25	24	19
4	71	61	53	47	64	55	48	43	44	39	35	34	30	28	24	22	20	24	22	20	16
5	65	54	46	40	58	49	42	37	39	34	30	30	27	24	22	19	18	22	19	18	14
6	60	48	40	35	54	44	37	32	35	30	26	27	24	21	20	17	15	20	17	15	12
7	55	43	36	30	49	39	33	28	32	27	23	25	21	18	18	15	14	18	15	14	11
8	51	39	32	27	46	36	29	24	29	24	20	22	19	16	16	14	12	16	14	12	10
9	47	36	28	23	43	32	26	22	26	21	18	20	17	15	15	13	11	15	13	11	9
10	44	33	26	21	40	30	23	19	24	19	16	19	15	13	14	12	10	14	12	10	8

AVERAGE LUMINANCE (cd/sqm):

	0°	90°	180°	270°
0°	6289	6289	6289	6289
5°	6329	6348	6329	4991
10°	6280	6253	6280	4470
15°	6204	6118	6204	5108
20°	6067	5957	6067	5119
25°	5794	5723	5794	5011
30°	5445	5529	5445	4773
35°	4847	5283	4847	4510
40°	4031	4993	4031	4313
45°	3595	4655	3595	4085
50°	3812	4251	3812	3857
55°	3575	3816	3575	3726
60°	3673	3241	3673	3412
65°	3313	2678	3313	2994
70°	2280	2134	2280	2510
75°	1974	1579	1974	1891
80°	1563	1043	1563	1135
85°	845	552	845	470

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 20°
 Vertical Angle: 45°
 Luminance: 5521 cd/sqm



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	61.2	1.1
10°-20°	173.7	3.1
20°-30°	268.5	4.8
30°-40°	320.5	5.7
40°-50°	322.4	5.8
50°-60°	280.5	5.0
60°-70°	198.9	3.6
70°-80°	105.2	1.9
80°-90°	28.5	0.5
90°-100°	288.8	5.2
100°-110°	759.3	13.6
110°-120°	787.3	14.1
120°-130°	631.5	11.3
130°-140°	495.5	8.8
140°-150°	380.3	6.8
150°-160°	273.9	4.9
160°-170°	167.6	3.0
170°-180°	56.6	1.0
0°-30°	503.4	9.0
0°-40°	823.9	14.7
0°-60°	1426.8	25.5
0°-90°	1759.4	31.4
90°-120°	1835.4	32.8
90°-150°	3342.8	59.7
90°-180°	3841.0	68.6
0°-180°	5600.3	100.0

CANDELA DISTRIBUTION:

	0°	90°	180°	270°	360°	Flux
0°	678	678	678	678	678	
5°	681	702	681	552	681	65
15°	650	696	650	581	650	183
25°	572	649	572	568	572	263
35°	435	579	435	494	435	269
45°	281	477	281	419	281	225
55°	229	352	229	344	229	210
65°	159	212	159	237	159	152
75°	60	101	60	121	60	63
85°	10	26	10	22	10	14
90°	4	15	4	15	4	4
95°	38	175	38	175	38	42
105°	137	1189	137	1189	137	145
115°	243	1531	243	1531	243	240
125°	338	1219	338	1219	338	300
135°	403	946	403	946	403	312
145°	467	768	467	768	467	293
155°	528	661	528	661	528	243
165°	570	616	570	616	570	161
175°	592	596	592	596	592	56
180°	592	592	592	592	592	



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CANDELA DISTRIBUTION (FULL):

	0°	10°	20°	22.5°	30°	40°	45°	50°	60°	67.5°	70°
0°	677.7	677.7	677.7	677.7	677.7	677.7	677.7	677.7	677.7	677.7	677.7
2.5°	683.4	683.4	687.3	688.6	688.6	686.7	684.8	686.7	692.4	694.3	693.7
5°	680.9	686.0	693.1	694.3	695.7	695.0	693.7	695.0	701.4	702.7	703.3
7.5°	675.8	685.4	694.3	696.3	698.2	696.3	695.7	696.9	703.3	704.6	704.6
10°	669.4	682.8	693.1	694.3	696.3	694.3	694.3	696.9	703.3	704.6	705.2
12.5°	660.4	679.0	688.6	689.8	692.4	691.8	691.2	693.7	700.2	701.4	701.4
15°	650.1	671.9	680.9	682.2	686.7	685.4	685.4	687.9	695.0	696.9	696.3
17.5°	636.0	663.0	673.2	675.1	678.4	677.7	678.4	680.9	687.3	688.6	689.3
20°	620.0	650.7	663.0	664.9	668.1	668.1	668.1	671.3	677.7	680.3	680.3
22.5°	598.2	637.9	650.7	652.1	655.9	655.9	657.2	661.6	667.4	668.1	668.1
25°	572.5	623.8	634.7	638.6	642.4	644.3	646.3	648.8	650.7	650.1	650.7
27.5°	545.6	605.9	620.0	622.5	627.7	629.6	632.2	632.8	633.4	635.4	634.1
30°	515.5	580.9	602.0	604.6	612.9	614.2	611.6	612.9	616.1	617.4	618.7
32.5°	481.5	543.7	583.4	589.2	596.9	593.1	592.4	594.3	599.5	599.5	600.8
35°	435.4	514.8	566.1	571.3	577.0	572.5	575.1	575.7	579.0	580.9	580.2
37.5°	384.7	489.9	548.2	552.0	556.5	550.8	554.6	556.5	559.1	557.8	557.8
40°	339.8	450.8	527.0	529.6	533.4	529.0	532.8	534.1	535.4	534.1	533.4
42.5°	306.5	407.7	504.6	507.8	505.2	508.4	509.7	512.3	510.3	507.8	507.8
45°	280.8	396.3	480.2	484.0	480.2	485.4	487.3	487.3	481.5	480.2	479.5
47.5°	272.5	373.1	455.8	455.8	453.9	460.3	463.6	459.1	453.3	451.3	451.3
50°	271.9	347.5	422.6	420.0	429.0	436.6	433.5	429.0	424.5	417.4	417.4
52.5°	246.8	316.1	379.5	389.2	403.2	407.7	402.7	398.2	390.4	387.3	384.7
55°	228.9	283.4	340.4	359.6	374.5	380.2	370.5	366.1	354.6	352.7	351.3
57.5°	225.0	235.9	304.6	328.9	346.8	346.3	340.4	332.1	322.5	320.5	320.0
60°	206.5	170.6	266.1	294.9	313.5	311.6	306.5	298.8	289.8	288.5	287.3
62.5°	187.2	123.7	222.5	255.2	281.4	280.8	276.4	264.8	258.4	255.2	252.6
65°	159.0	103.8	158.4	212.2	250.1	251.3	241.7	233.4	226.3	222.5	221.8
67.5°	121.2	84.6	107.1	177.0	219.9	218.6	206.5	202.6	193.6	191.7	187.9
70°	89.8	56.4	74.4	143.6	190.4	187.2	177.6	173.1	164.8	160.3	157.7
72.5°	74.4	45.5	54.5	111.6	160.3	156.4	148.1	143.0	135.9	132.1	129.5
75°	60.2	48.1	41.7	82.7	130.1	127.6	119.9	114.7	109.0	103.8	104.5
77.5°	44.3	44.8	33.4	60.9	103.2	99.4	94.9	88.5	85.9	80.8	80.8
80°	33.4	35.3	25.0	41.7	74.4	74.4	70.6	66.1	61.6	59.0	59.0
82.5°	22.5	22.5	18.5	26.3	50.7	48.8	46.2	44.8	42.4	41.0	41.0
85°	10.2	12.8	11.6	16.1	27.5	28.9	28.9	27.5	27.0	25.6	26.3
87.5°	3.3	5.7	7.1	9.0	14.1	14.7	15.4	15.4	15.4	16.1	16.1
90°	4.0	7.2	10.3	11.1	17.5	26.0	30.2	26.9	20.2	15.1	15.1
92.5°	15.9	42.9	70.0	76.8	107.9	149.4	170.2	149.1	107.1	75.5	72.6
95°	38.1	87.7	137.2	149.5	265.5	420.1	497.4	443.9	336.8	256.5	247.4
97.5°	66.0	109.7	153.3	164.2	357.6	615.5	744.3	710.5	642.8	592.1	574.7
100°	87.5	127.1	166.6	176.6	391.2	677.3	820.3	822.8	827.7	831.4	810.8
102.5°	105.7	142.7	179.6	188.9	406.6	696.7	841.9	885.0	971.2	1035.8	1018.1
105°	136.8	168.1	199.3	207.2	418.0	698.9	839.5	936.1	1129.4	1274.4	1265.0
107.5°	168.6	197.8	227.0	234.2	420.1	667.8	791.7	926.6	1196.2	1398.5	1400.8
110°	190.1	216.4	242.7	249.3	416.8	640.2	751.9	902.7	1204.2	1430.3	1440.2



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CANDELA DISTRIBUTION (continued):

	0°	10°	20°	22.5°	30°	40°	45°	50°	60°	67.5°	70°
112.5°	211.2	236.2	261.3	267.6	417.0	616.1	715.8	870.1	1178.6	1410.0	1425.2
115°	242.9	266.1	289.2	295.0	420.8	588.6	672.5	821.1	1118.3	1341.3	1362.3
117.5°	274.4	295.4	316.4	321.7	428.7	571.3	642.6	776.8	1045.0	1246.2	1269.6
120°	292.6	312.4	332.2	337.2	435.0	565.5	630.7	753.2	998.4	1182.2	1204.9
122.5°	310.6	330.6	350.6	355.5	444.2	562.4	621.5	731.8	952.6	1118.1	1140.5
125°	338.0	356.2	374.4	379.0	456.5	559.8	611.6	705.3	892.8	1033.4	1054.1
127.5°	360.2	378.6	397.0	401.6	468.8	558.4	603.2	683.7	844.7	965.5	982.9
130°	372.2	392.0	411.7	416.7	477.8	559.4	600.1	671.8	815.1	922.5	938.6
132.5°	384.5	404.3	424.1	429.1	485.1	559.8	597.2	661.4	789.7	885.9	900.4
135°	402.9	420.8	438.9	443.4	493.1	559.4	592.5	646.3	753.6	834.2	846.6
137.5°	421.5	439.4	457.2	461.7	505.0	562.8	591.7	637.1	727.9	796.1	806.2
140°	437.0	453.4	469.9	474.0	512.3	563.4	588.9	628.1	706.6	765.5	774.9
142.5°	448.9	464.1	479.3	483.2	518.4	565.4	588.9	623.3	692.2	744.0	752.2
145°	467.2	480.5	493.7	497.0	526.4	565.5	585.0	613.2	669.5	711.7	718.0
147.5°	485.6	498.5	511.3	514.5	538.0	569.3	585.0	607.2	651.5	684.8	689.9
150°	497.4	509.1	520.7	523.7	544.2	571.4	585.0	603.7	641.1	669.2	673.3
152.5°	509.7	518.5	527.4	529.6	548.1	572.6	585.0	600.9	632.9	656.9	660.0
155°	528.1	534.6	541.2	542.8	556.9	575.6	585.0	597.7	623.1	642.1	644.2
157.5°	541.6	548.0	554.3	555.9	565.6	578.5	585.0	594.8	614.6	629.4	630.9
160°	550.8	555.7	560.6	561.8	569.6	579.8	585.0	593.5	610.4	623.1	624.0
162.5°	559.8	563.6	567.3	568.2	573.8	581.2	585.0	592.1	606.4	617.1	617.9
165°	569.8	573.1	576.5	577.3	579.9	583.3	585.0	590.1	600.4	608.0	608.9
167.5°	579.0	580.6	582.2	582.6	584.7	587.5	588.9	592.2	598.9	604.0	604.4
170°	585.0	586.5	588.1	588.5	588.6	588.8	588.9	592.2	598.9	604.0	604.0
172.5°	588.1	588.5	588.8	588.9	588.9	588.9	588.9	591.6	596.8	600.8	600.6
175°	592.5	592.5	592.5	592.5	591.3	589.7	588.9	590.6	594.0	596.4	596.4
177.5°	592.5	592.5	592.5	592.5	591.6	590.3	589.7	591.0	593.7	595.7	595.3
180°	592.5	592.5	592.5	592.5	592.5	592.5	592.5	592.5	592.5	592.5	592.5



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CANDELA DISTRIBUTION (continued):

	80°	90°	100°	110°	112.5°	120°	130°	135°	140°	150°	157.5°
0°	677.7	677.7	677.7	677.7	677.7	677.7	677.7	677.7	677.7	677.7	677.7
2.5°	695.0	693.1	695.0	693.7	694.3	692.4	686.7	684.8	686.7	688.6	688.6
5°	703.3	702.1	703.3	703.3	702.7	701.4	695.0	693.7	695.0	695.7	694.3
7.5°	705.9	704.0	705.9	704.6	704.6	703.3	696.9	695.7	696.3	698.2	696.3
10°	705.9	704.0	705.9	705.2	704.6	703.3	696.9	694.3	694.3	696.3	694.3
12.5°	702.7	701.4	702.7	701.4	701.4	700.2	693.7	691.2	691.8	692.4	689.8
15°	697.6	695.7	697.6	696.3	696.9	695.0	687.9	685.4	685.4	686.7	682.2
17.5°	689.8	687.3	689.8	689.3	688.6	687.3	680.9	678.4	677.7	678.4	675.1
20°	680.9	679.0	680.9	680.3	680.3	677.7	671.3	668.1	668.1	668.1	664.9
22.5°	666.8	664.9	666.8	668.1	668.1	667.4	661.6	657.2	655.9	655.9	652.1
25°	650.7	648.8	650.7	650.7	650.1	650.7	648.8	646.3	644.3	642.4	638.6
27.5°	635.4	634.1	635.4	634.1	635.4	633.4	632.8	632.2	629.6	627.7	622.5
30°	620.0	618.7	620.0	618.7	617.4	616.1	612.9	611.6	614.2	612.9	604.6
32.5°	600.8	599.5	600.8	600.8	599.5	599.5	594.3	592.4	593.1	596.9	589.2
35°	580.9	579.0	580.9	580.2	580.9	579.0	575.7	575.1	572.5	577.0	571.3
37.5°	557.8	555.9	557.8	557.8	557.8	559.1	556.5	554.6	550.8	556.5	552.0
40°	534.1	531.5	534.1	533.4	534.1	535.4	534.1	532.8	529.0	533.4	529.6
42.5°	507.2	506.5	507.2	507.8	507.8	510.3	512.3	509.7	508.4	505.2	507.8
45°	478.3	477.0	478.3	479.5	480.2	481.5	487.3	487.3	485.4	480.2	484.0
47.5°	447.5	444.3	447.5	451.3	451.3	453.3	459.1	463.6	460.3	453.9	455.8
50°	414.8	415.5	414.8	417.4	417.4	424.5	429.0	433.5	436.6	429.0	420.0
52.5°	382.8	382.1	382.8	384.7	387.3	390.4	398.2	402.7	407.7	403.2	389.2
55°	350.7	352.0	350.7	351.3	352.7	354.6	366.1	370.5	380.2	374.5	359.6
57.5°	318.6	316.7	318.6	320.0	320.5	322.5	332.1	340.4	346.3	346.8	328.9
60°	281.4	278.9	281.4	287.3	288.5	289.8	298.8	306.5	311.6	313.5	294.9
62.5°	248.8	244.3	248.8	252.6	255.2	258.4	264.8	276.4	280.8	281.4	255.2
65°	214.1	212.2	214.1	221.8	222.5	226.3	233.4	241.7	251.3	250.1	212.2
67.5°	182.7	182.7	182.7	187.9	191.7	193.6	202.6	206.5	218.6	219.9	177.0
70°	153.9	153.2	153.9	157.7	160.3	164.8	173.1	177.6	187.2	190.4	143.6
72.5°	126.3	125.6	126.3	129.5	132.1	135.9	143.0	148.1	156.4	160.3	111.6
75°	101.9	100.7	101.9	104.5	103.8	109.0	114.7	119.9	127.6	130.1	82.7
77.5°	78.2	78.2	78.2	80.8	80.8	85.9	88.5	94.9	99.4	103.2	60.9
80°	58.3	57.7	58.3	59.0	59.0	61.6	66.1	70.6	74.4	74.4	41.7
82.5°	41.0	39.8	41.0	41.0	41.0	42.4	44.8	46.2	48.8	50.7	26.3
85°	25.6	25.6	25.6	26.3	25.6	27.0	27.5	28.9	28.9	27.5	16.1
87.5°	16.6	16.1	16.6	16.1	16.1	15.4	15.4	15.4	14.7	14.1	9.0
90°	15.1	15.1	15.1	15.1	15.1	20.2	26.9	30.2	26.0	17.5	11.1
92.5°	60.5	48.5	60.5	72.6	75.5	107.1	149.1	170.2	149.4	107.9	76.8
95°	211.0	174.6	211.0	247.4	256.5	336.8	443.9	497.4	420.1	265.5	149.5
97.5°	505.4	436.2	505.4	574.7	592.1	642.8	710.5	744.3	615.5	357.6	164.2
100°	728.3	645.8	728.3	810.8	831.4	827.7	822.8	820.3	677.3	391.2	176.6
102.5°	947.5	876.8	947.5	1018.1	1035.8	971.2	885.0	841.9	696.7	406.6	188.9
105°	1226.9	1189.0	1226.9	1265.0	1274.4	1129.4	936.1	839.5	698.9	418.0	207.2
107.5°	1410.0	1419.2	1410.0	1400.8	1398.5	1196.2	926.6	791.7	667.8	420.1	234.2
110°	1479.8	1519.4	1479.8	1440.2	1430.3	1204.2	902.7	751.9	640.2	416.8	249.3



TEST NUMBER: P935010

CATALOG NUMBER: SQ4-FA-100U-050D-830-1D-UNV-STD-W-4

CANDELA DISTRIBUTION (continued):

	80°	90°	100°	110°	112.5°	120°	130°	135°	140°	150°	157.5°
112.5°	1486.0	1546.8	1486.0	1425.2	1410.0	1178.6	870.1	715.8	616.1	417.0	267.6
115°	1446.6	1530.9	1446.6	1362.3	1341.3	1118.3	821.1	672.5	588.6	420.8	295.0
117.5°	1363.1	1456.6	1363.1	1269.6	1246.2	1045.0	776.8	642.6	571.3	428.7	321.7
120°	1295.8	1386.6	1295.8	1204.9	1182.2	998.4	753.2	630.7	565.5	435.0	337.2
122.5°	1230.2	1319.8	1230.2	1140.5	1118.1	952.6	731.8	621.5	562.4	444.2	355.5
125°	1136.6	1219.2	1136.6	1054.1	1033.4	892.8	705.3	611.6	559.8	456.5	379.0
127.5°	1052.6	1122.2	1052.6	982.9	965.5	844.7	683.7	603.2	558.4	468.8	401.6
130°	1002.9	1067.3	1002.9	938.6	922.5	815.1	671.8	600.1	559.4	477.8	416.7
132.5°	957.9	1015.6	957.9	900.4	885.9	789.7	661.4	597.2	559.8	485.1	429.1
135°	896.2	946.0	896.2	846.6	834.2	753.6	646.3	592.5	559.4	493.1	443.4
137.5°	846.9	887.6	846.9	806.2	796.1	727.9	637.1	591.7	562.8	505.0	461.7
140°	813.0	850.9	813.0	774.9	765.5	706.6	628.1	588.9	563.4	512.3	474.0
142.5°	784.9	817.6	784.9	752.2	744.0	692.2	623.3	588.9	565.4	518.4	483.2
145°	742.7	767.5	742.7	718.0	711.7	669.5	613.2	585.0	565.5	526.4	497.0
147.5°	710.4	730.9	710.4	689.9	684.8	651.5	607.2	585.0	569.3	538.0	514.5
150°	689.9	706.6	689.9	673.3	669.2	641.1	603.7	585.0	571.4	544.2	523.7
152.5°	672.5	685.2	672.5	660.0	656.9	632.9	600.9	585.0	572.6	548.1	529.6
155°	652.6	660.9	652.6	644.2	642.1	623.1	597.7	585.0	575.6	556.9	542.8
157.5°	636.8	642.6	636.8	630.9	629.4	614.6	594.8	585.0	578.5	565.6	555.9
160°	627.3	630.7	627.3	624.0	623.1	610.4	593.5	585.0	579.8	569.6	561.8
162.5°	621.1	624.3	621.1	617.9	617.1	606.4	592.1	585.0	581.2	573.8	568.2
165°	612.2	615.6	612.2	608.9	608.0	600.4	590.1	585.0	583.3	579.9	577.3
167.5°	605.7	607.2	605.7	604.4	604.0	598.9	592.2	588.9	587.5	584.7	582.6
170°	604.0	604.0	604.0	604.0	604.0	598.9	592.2	588.9	588.8	588.6	588.5
172.5°	599.3	598.1	599.3	600.6	600.8	596.8	591.6	588.9	588.9	588.9	588.9
175°	596.4	596.4	596.4	596.4	596.4	594.0	590.6	588.9	589.7	591.3	592.5
177.5°	594.0	592.5	594.0	595.3	595.7	593.7	591.0	589.7	590.3	591.6	592.5
180°	592.5	592.5	592.5	592.5	592.5	592.5	592.5	592.5	592.5	592.5	592.5



TEST NUMBER: P935010

CATALOG NUMBER: SQ4-FA-100U-050D-830-1D-UNV-STD-W-4

CANDELA DISTRIBUTION (continued):

	160°	170°	180°	190°	200°	202.5°	210°	220°	225°	230°	240°
0°	677.7	677.7	677.7	677.7	677.7	677.7	677.7	677.7	677.7	677.7	677.7
2.5°	687.3	683.4	683.4	677.0	674.5	672.5	669.4	659.7	657.2	654.6	658.5
5°	693.1	686.0	680.9	669.4	659.7	655.9	643.7	620.6	605.2	593.7	587.3
7.5°	694.3	685.4	675.8	657.8	634.7	624.5	587.3	545.0	533.4	523.2	516.7
10°	693.1	682.8	669.4	642.4	587.9	570.0	532.8	505.2	498.2	496.3	498.2
12.5°	688.6	679.0	660.4	615.5	539.2	527.0	505.2	489.2	487.9	491.1	508.4
15°	680.9	671.9	650.1	579.6	512.3	503.3	487.9	482.1	489.2	511.7	563.6
17.5°	673.2	663.0	636.0	544.3	491.8	485.4	474.5	486.0	525.7	555.9	573.2
20°	663.0	650.7	620.0	518.7	477.0	471.2	466.1	518.1	548.2	559.1	568.7
22.5°	650.7	637.9	598.2	500.8	461.7	457.2	460.3	536.0	548.2	555.9	564.2
25°	634.7	623.8	572.5	486.6	449.4	444.3	456.5	534.1	541.1	543.0	559.7
27.5°	620.0	605.9	545.6	473.8	434.7	432.8	459.7	525.7	530.9	532.8	550.8
30°	602.0	580.9	515.5	460.3	419.3	418.6	460.3	515.5	514.2	519.3	537.3
32.5°	583.4	543.7	481.5	443.7	404.6	403.9	455.8	500.1	498.8	505.8	519.3
35°	566.1	514.8	435.4	424.5	385.9	386.6	444.9	482.1	482.8	489.2	497.5
37.5°	548.2	489.9	384.7	403.2	368.1	368.1	430.2	465.5	464.2	466.1	477.6
40°	527.0	450.8	339.8	375.7	351.3	349.4	412.2	447.5	443.0	442.4	458.4
42.5°	504.6	407.7	306.5	339.2	332.1	329.5	390.4	425.7	417.4	419.3	439.9
45°	480.2	396.3	280.8	286.6	312.2	310.3	366.7	400.8	394.9	400.1	421.2
47.5°	455.8	373.1	272.5	237.9	291.1	290.4	340.4	376.4	373.1	378.3	400.8
50°	422.6	347.5	271.9	203.9	267.4	269.9	309.1	352.7	352.7	357.2	380.9
52.5°	379.5	316.1	246.8	184.6	239.8	247.5	281.4	332.1	333.4	337.9	359.1
55°	340.4	283.4	228.9	169.9	207.1	223.8	254.5	311.0	313.5	318.0	337.3
57.5°	304.6	235.9	225.0	152.6	177.0	193.0	230.8	290.4	291.7	295.6	314.1
60°	266.1	170.6	206.5	134.0	150.7	162.8	209.0	266.1	270.5	273.1	289.2
62.5°	222.5	123.7	187.2	121.2	137.9	140.4	191.1	243.0	248.8	250.7	260.3
65°	158.4	103.8	159.0	110.3	124.4	125.0	171.8	219.3	224.4	227.6	234.7
67.5°	107.1	84.6	121.2	100.0	114.1	114.7	153.2	191.7	198.8	201.3	205.8
70°	74.4	56.4	89.8	89.1	102.6	103.8	133.4	166.7	173.1	175.0	177.6
72.5°	54.5	45.5	74.4	80.1	90.4	91.7	112.8	138.5	144.9	146.8	148.1
75°	41.7	48.1	60.2	69.9	77.0	77.5	92.3	112.8	117.3	118.6	119.2
77.5°	33.4	44.8	44.3	56.4	62.8	61.6	72.5	87.2	91.0	91.0	91.0
80°	25.0	35.3	33.4	40.4	46.2	44.8	51.9	62.2	63.5	64.7	64.1
82.5°	18.5	22.5	22.5	25.6	30.8	29.5	34.6	40.4	40.4	40.4	41.7
85°	11.6	12.8	10.2	13.5	17.3	16.6	19.2	21.8	22.5	22.5	21.1
87.5°	7.1	5.7	3.3	5.2	7.6	7.6	9.0	9.7	9.0	9.0	9.0
90°	10.3	7.2	4.0	7.2	10.3	11.1	17.5	26.0	30.2	26.9	20.2
92.5°	70.0	42.9	15.9	42.9	70.0	76.8	107.9	149.4	170.2	149.1	107.1
95°	137.2	87.7	38.1	87.7	137.2	149.5	265.5	420.1	497.4	443.9	336.8
97.5°	153.3	109.7	66.0	109.7	153.3	164.2	357.6	615.5	744.3	710.5	642.8
100°	166.6	127.1	87.5	127.1	166.6	176.6	391.2	677.3	820.3	822.8	827.7
102.5°	179.6	142.7	105.7	142.7	179.6	188.9	406.6	696.7	841.9	885.0	971.2
105°	199.3	168.1	136.8	168.1	199.3	207.2	418.0	698.9	839.5	936.1	1129.4
107.5°	227.0	197.8	168.6	197.8	227.0	234.2	420.1	667.8	791.7	926.6	1196.2
110°	242.7	216.4	190.1	216.4	242.7	249.3	416.8	640.2	751.9	902.7	1204.2



TEST NUMBER: P935010

CATALOG NUMBER: SQ4-FA-100U-050D-830-1D-UNV-STD-W-4

CANDELA DISTRIBUTION (continued):

	160°	170°	180°	190°	200°	202.5°	210°	220°	225°	230°	240°
112.5°	261.3	236.2	211.2	236.2	261.3	267.6	417.0	616.1	715.8	870.1	1178.6
115°	289.2	266.1	242.9	266.1	289.2	295.0	420.8	588.6	672.5	821.1	1118.3
117.5°	316.4	295.4	274.4	295.4	316.4	321.7	428.7	571.3	642.6	776.8	1045.0
120°	332.2	312.4	292.6	312.4	332.2	337.2	435.0	565.5	630.7	753.2	998.4
122.5°	350.6	330.6	310.6	330.6	350.6	355.5	444.2	562.4	621.5	731.8	952.6
125°	374.4	356.2	338.0	356.2	374.4	379.0	456.5	559.8	611.6	705.3	892.8
127.5°	397.0	378.6	360.2	378.6	397.0	401.6	468.8	558.4	603.2	683.7	844.7
130°	411.7	392.0	372.2	392.0	411.7	416.7	477.8	559.4	600.1	671.8	815.1
132.5°	424.1	404.3	384.5	404.3	424.1	429.1	485.1	559.8	597.2	661.4	789.7
135°	438.9	420.8	402.9	420.8	438.9	443.4	493.1	559.4	592.5	646.3	753.6
137.5°	457.2	439.4	421.5	439.4	457.2	461.7	505.0	562.8	591.7	637.1	727.9
140°	469.9	453.4	437.0	453.4	469.9	474.0	512.3	563.4	588.9	628.1	706.6
142.5°	479.3	464.1	448.9	464.1	479.3	483.2	518.4	565.4	588.9	623.3	692.2
145°	493.7	480.5	467.2	480.5	493.7	497.0	526.4	565.5	585.0	613.2	669.5
147.5°	511.3	498.5	485.6	498.5	511.3	514.5	538.0	569.3	585.0	607.2	651.5
150°	520.7	509.1	497.4	509.1	520.7	523.7	544.2	571.4	585.0	603.7	641.1
152.5°	527.4	518.5	509.7	518.5	527.4	529.6	548.1	572.6	585.0	600.9	632.9
155°	541.2	534.6	528.1	534.6	541.2	542.8	556.9	575.6	585.0	597.7	623.1
157.5°	554.3	548.0	541.6	548.0	554.3	555.9	565.6	578.5	585.0	594.8	614.6
160°	560.6	555.7	550.8	555.7	560.6	561.8	569.6	579.8	585.0	593.5	610.4
162.5°	567.3	563.6	559.8	563.6	567.3	568.2	573.8	581.2	585.0	592.1	606.4
165°	576.5	573.1	569.8	573.1	576.5	577.3	579.9	583.3	585.0	590.1	600.4
167.5°	582.2	580.6	579.0	580.6	582.2	582.6	584.7	587.5	588.9	592.2	598.9
170°	588.1	586.5	585.0	586.5	588.1	588.5	588.6	588.8	588.9	592.2	598.9
172.5°	588.8	588.5	588.1	588.5	588.8	588.9	588.9	588.9	588.9	591.6	596.8
175°	592.5	592.5	592.5	592.5	592.5	592.5	591.3	589.7	588.9	590.6	594.0
177.5°	592.5	592.5	592.5	592.5	592.5	592.5	591.6	590.3	589.7	591.0	593.7
180°	592.5	592.5	592.5	592.5	592.5	592.5	592.5	592.5	592.5	592.5	592.5



TEST NUMBER: P935010
 CATALOG NUMBER: SQ4-FA-100U-050D-830-1D-UNV-STD-W-4

CANDELA DISTRIBUTION (continued):

	247.5°	250°	260°	270°	280°	290°	292.5°	300°	310°	315°	320°
0°	677.7	677.7	677.7	677.7	677.7	677.7	677.7	677.7	677.7	677.7	677.7
2.5°	654.0	652.1	654.6	647.6	654.6	652.1	654.0	658.5	654.6	657.2	659.7
5°	573.8	570.6	560.4	552.0	560.4	570.6	573.8	587.3	593.7	605.2	620.6
7.5°	512.9	510.3	507.8	502.7	507.8	510.3	512.9	516.7	523.2	533.4	545.0
10°	499.4	500.1	503.9	503.3	503.9	500.1	499.4	498.2	496.3	498.2	505.2
12.5°	534.1	539.9	561.0	559.7	561.0	539.9	534.1	508.4	491.1	487.9	489.2
15°	573.8	575.7	580.2	580.9	580.2	575.7	573.8	563.6	511.7	489.2	482.1
17.5°	577.7	578.3	581.5	581.5	581.5	578.3	577.7	573.2	555.9	525.7	486.0
20°	574.5	575.7	582.2	583.4	582.2	575.7	574.5	568.7	559.1	548.2	518.1
22.5°	573.2	575.7	580.9	580.2	580.9	575.7	573.2	564.2	555.9	548.2	536.0
25°	566.8	566.8	567.4	568.1	567.4	566.8	566.8	559.7	543.0	541.1	534.1
27.5°	553.3	554.6	558.4	557.8	558.4	554.6	553.3	550.8	532.8	530.9	525.7
30°	541.1	539.9	536.6	534.1	536.6	539.9	541.1	537.3	519.3	514.2	515.5
32.5°	520.6	517.4	514.2	512.3	514.2	517.4	520.6	519.3	505.8	498.8	500.1
35°	496.3	496.9	496.3	494.3	496.3	496.9	496.3	497.5	489.2	482.8	482.1
37.5°	479.0	480.2	479.5	477.0	479.5	480.2	479.0	477.6	466.1	464.2	465.5
40°	461.0	461.7	461.0	459.1	461.0	461.7	461.0	458.4	442.4	443.0	447.5
42.5°	443.7	443.0	441.1	439.9	441.1	443.0	443.7	439.9	419.3	417.4	425.7
45°	423.8	424.5	420.5	418.6	420.5	424.5	423.8	421.2	400.1	394.9	400.8
47.5°	403.9	403.9	400.8	398.7	400.8	403.9	403.9	400.8	378.3	373.1	376.4
50°	382.8	382.1	377.6	377.0	377.6	382.1	382.8	380.9	357.2	352.7	352.7
52.5°	358.4	358.4	359.1	360.3	359.1	358.4	358.4	359.1	337.9	333.4	332.1
55°	337.3	337.9	342.3	343.7	342.3	337.9	337.3	337.3	318.0	313.5	311.0
57.5°	315.5	315.5	318.6	318.6	318.6	315.5	315.5	314.1	295.6	291.7	290.4
60°	290.4	291.7	294.3	293.7	294.3	291.7	290.4	289.2	273.1	270.5	266.1
62.5°	264.1	265.5	266.1	264.8	266.1	265.5	264.1	260.3	250.7	248.8	243.0
65°	236.6	237.9	238.5	237.2	238.5	237.9	236.6	234.7	227.6	224.4	219.3
67.5°	208.4	207.7	207.1	209.7	207.1	207.7	208.4	205.8	201.3	198.8	191.7
70°	179.5	179.5	178.9	180.2	178.9	179.5	179.5	177.6	175.0	173.1	166.7
72.5°	148.8	148.1	150.7	148.8	150.7	148.1	148.8	148.1	146.8	144.9	138.5
75°	118.6	119.9	118.6	120.6	118.6	119.9	118.6	119.2	118.6	117.3	112.8
77.5°	90.4	91.7	90.4	90.4	90.4	91.7	90.4	91.0	91.0	91.0	87.2
80°	64.1	63.5	63.5	62.8	63.5	63.5	64.1	64.1	64.7	63.5	62.2
82.5°	41.0	40.4	40.4	41.7	40.4	40.4	41.0	41.7	40.4	40.4	40.4
85°	22.5	23.0	21.8	21.8	21.8	23.0	22.5	21.1	22.5	22.5	21.8
87.5°	8.3	7.6	7.6	7.6	7.6	7.6	8.3	9.0	9.0	9.0	9.7
90°	15.1	15.1	15.1	15.1	15.1	15.1	15.1	20.2	26.9	30.2	26.0
92.5°	75.5	72.6	60.5	48.5	60.5	72.6	75.5	107.1	149.1	170.2	149.4
95°	256.5	247.4	211.0	174.6	211.0	247.4	256.5	336.8	443.9	497.4	420.1
97.5°	592.1	574.7	505.4	436.2	505.4	574.7	592.1	642.8	710.5	744.3	615.5
100°	831.4	810.8	728.3	645.8	728.3	810.8	831.4	827.7	822.8	820.3	677.3
102.5°	1035.8	1018.1	947.5	876.8	947.5	1018.1	1035.8	971.2	885.0	841.9	696.7
105°	1274.4	1265.0	1226.9	1189.0	1226.9	1265.0	1274.4	1129.4	936.1	839.5	698.9
107.5°	1398.5	1400.8	1410.0	1419.2	1410.0	1400.8	1398.5	1196.2	926.6	791.7	667.8
110°	1430.3	1440.2	1479.8	1519.4	1479.8	1440.2	1430.3	1204.2	902.7	751.9	640.2



TEST NUMBER: P935010

CATALOG NUMBER: SQ4-FA-100U-050D-830-1D-UNV-STD-W-4

CANDELA DISTRIBUTION (continued):

	247.5°	250°	260°	270°	280°	290°	292.5°	300°	310°	315°	320°
112.5°	1410.0	1425.2	1486.0	1546.8	1486.0	1425.2	1410.0	1178.6	870.1	715.8	616.1
115°	1341.3	1362.3	1446.6	1530.9	1446.6	1362.3	1341.3	1118.3	821.1	672.5	588.6
117.5°	1246.2	1269.6	1363.1	1456.6	1363.1	1269.6	1246.2	1045.0	776.8	642.6	571.3
120°	1182.2	1204.9	1295.8	1386.6	1295.8	1204.9	1182.2	998.4	753.2	630.7	565.5
122.5°	1118.1	1140.5	1230.2	1319.8	1230.2	1140.5	1118.1	952.6	731.8	621.5	562.4
125°	1033.4	1054.1	1136.6	1219.2	1136.6	1054.1	1033.4	892.8	705.3	611.6	559.8
127.5°	965.5	982.9	1052.6	1122.2	1052.6	982.9	965.5	844.7	683.7	603.2	558.4
130°	922.5	938.6	1002.9	1067.3	1002.9	938.6	922.5	815.1	671.8	600.1	559.4
132.5°	885.9	900.4	957.9	1015.6	957.9	900.4	885.9	789.7	661.4	597.2	559.8
135°	834.2	846.6	896.2	946.0	896.2	846.6	834.2	753.6	646.3	592.5	559.4
137.5°	796.1	806.2	846.9	887.6	846.9	806.2	796.1	727.9	637.1	591.7	562.8
140°	765.5	774.9	813.0	850.9	813.0	774.9	765.5	706.6	628.1	588.9	563.4
142.5°	744.0	752.2	784.9	817.6	784.9	752.2	744.0	692.2	623.3	588.9	565.4
145°	711.7	718.0	742.7	767.5	742.7	718.0	711.7	669.5	613.2	585.0	565.5
147.5°	684.8	689.9	710.4	730.9	710.4	689.9	684.8	651.5	607.2	585.0	569.3
150°	669.2	673.3	689.9	706.6	689.9	673.3	669.2	641.1	603.7	585.0	571.4
152.5°	656.9	660.0	672.5	685.2	672.5	660.0	656.9	632.9	600.9	585.0	572.6
155°	642.1	644.2	652.6	660.9	652.6	644.2	642.1	623.1	597.7	585.0	575.6
157.5°	629.4	630.9	636.8	642.6	636.8	630.9	629.4	614.6	594.8	585.0	578.5
160°	623.1	624.0	627.3	630.7	627.3	624.0	623.1	610.4	593.5	585.0	579.8
162.5°	617.1	617.9	621.1	624.3	621.1	617.9	617.1	606.4	592.1	585.0	581.2
165°	608.0	608.9	612.2	615.6	612.2	608.9	608.0	600.4	590.1	585.0	583.3
167.5°	604.0	604.4	605.7	607.2	605.7	604.4	604.0	598.9	592.2	588.9	587.5
170°	604.0	604.0	604.0	604.0	604.0	604.0	604.0	598.9	592.2	588.9	588.8
172.5°	600.8	600.6	599.3	598.1	599.3	600.6	600.8	596.8	591.6	588.9	588.9
175°	596.4	596.4	596.4	596.4	596.4	596.4	596.4	594.0	590.6	588.9	589.7
177.5°	595.7	595.3	594.0	592.5	594.0	595.3	595.7	593.7	591.0	589.7	590.3
180°	592.5	592.5	592.5	592.5	592.5	592.5	592.5	592.5	592.5	592.5	592.5



TEST NUMBER: P935010

CATALOG NUMBER: SQ4-FA-100U-050D-830-1D-UNV-STD-W-4

CANDELA DISTRIBUTION (continued):

	330°	337.5°	340°	350°	360°
0°	677.7	677.7	677.7	677.7	677.7
2.5°	669.4	672.5	674.5	677.0	683.4
5°	643.7	655.9	659.7	669.4	680.9
7.5°	587.3	624.5	634.7	657.8	675.8
10°	532.8	570.0	587.9	642.4	669.4
12.5°	505.2	527.0	539.2	615.5	660.4
15°	487.9	503.3	512.3	579.6	650.1
17.5°	474.5	485.4	491.8	544.3	636.0
20°	466.1	471.2	477.0	518.7	620.0
22.5°	460.3	457.2	461.7	500.8	598.2
25°	456.5	444.3	449.4	486.6	572.5
27.5°	459.7	432.8	434.7	473.8	545.6
30°	460.3	418.6	419.3	460.3	515.5
32.5°	455.8	403.9	404.6	443.7	481.5
35°	444.9	386.6	385.9	424.5	435.4
37.5°	430.2	368.1	368.1	403.2	384.7
40°	412.2	349.4	351.3	375.7	339.8
42.5°	390.4	329.5	332.1	339.2	306.5
45°	366.7	310.3	312.2	286.6	280.8
47.5°	340.4	290.4	291.1	237.9	272.5
50°	309.1	269.9	267.4	203.9	271.9
52.5°	281.4	247.5	239.8	184.6	246.8
55°	254.5	223.8	207.1	169.9	228.9
57.5°	230.8	193.0	177.0	152.6	225.0
60°	209.0	162.8	150.7	134.0	206.5
62.5°	191.1	140.4	137.9	121.2	187.2
65°	171.8	125.0	124.4	110.3	159.0
67.5°	153.2	114.7	114.1	100.0	121.2
70°	133.4	103.8	102.6	89.1	89.8
72.5°	112.8	91.7	90.4	80.1	74.4
75°	92.3	77.5	77.0	69.9	60.2
77.5°	72.5	61.6	62.8	56.4	44.3
80°	51.9	44.8	46.2	40.4	33.4
82.5°	34.6	29.5	30.8	25.6	22.5
85°	19.2	16.6	17.3	13.5	10.2
87.5°	9.0	7.6	7.6	5.2	3.3
90°	17.5	11.1	10.3	7.2	4.0
92.5°	107.9	76.8	70.0	42.9	15.9
95°	265.5	149.5	137.2	87.7	38.1
97.5°	357.6	164.2	153.3	109.7	66.0
100°	391.2	176.6	166.6	127.1	87.5
102.5°	406.6	188.9	179.6	142.7	105.7
105°	418.0	207.2	199.3	168.1	136.8
107.5°	420.1	234.2	227.0	197.8	168.6
110°	416.8	249.3	242.7	216.4	190.1



TEST NUMBER: P935010

CATALOG NUMBER: SQ4-FA-100U-050D-830-1D-UNV-STD-W-4

CANDELA DISTRIBUTION (continued):

	330°	337.5°	340°	350°	360°
112.5°	417.0	267.6	261.3	236.2	211.2
115°	420.8	295.0	289.2	266.1	242.9
117.5°	428.7	321.7	316.4	295.4	274.4
120°	435.0	337.2	332.2	312.4	292.6
122.5°	444.2	355.5	350.6	330.6	310.6
125°	456.5	379.0	374.4	356.2	338.0
127.5°	468.8	401.6	397.0	378.6	360.2
130°	477.8	416.7	411.7	392.0	372.2
132.5°	485.1	429.1	424.1	404.3	384.5
135°	493.1	443.4	438.9	420.8	402.9
137.5°	505.0	461.7	457.2	439.4	421.5
140°	512.3	474.0	469.9	453.4	437.0
142.5°	518.4	483.2	479.3	464.1	448.9
145°	526.4	497.0	493.7	480.5	467.2
147.5°	538.0	514.5	511.3	498.5	485.6
150°	544.2	523.7	520.7	509.1	497.4
152.5°	548.1	529.6	527.4	518.5	509.7
155°	556.9	542.8	541.2	534.6	528.1
157.5°	565.6	555.9	554.3	548.0	541.6
160°	569.6	561.8	560.6	555.7	550.8
162.5°	573.8	568.2	567.3	563.6	559.8
165°	579.9	577.3	576.5	573.1	569.8
167.5°	584.7	582.6	582.2	580.6	579.0
170°	588.6	588.5	588.1	586.5	585.0
172.5°	588.9	588.9	588.8	588.5	588.1
175°	591.3	592.5	592.5	592.5	592.5
177.5°	591.6	592.5	592.5	592.5	592.5
180°	592.5	592.5	592.5	592.5	592.5



TEST NUMBER: P935010
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CIE UGR TABLE:

Reflectances:											
Ceiling		0.7	0.7	0.5	0.5	0.3	0.7	0.7	0.5	0.5	0.3
Wall		0.5	0.3	0.5	0.3	0.3	0.5	0.3	0.5	0.3	0.3
Reference plane		0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2
Room dimensions		Viewed crosswise					Viewed endwise				
X=2H	Y=2H	9.16	9.87	10.26	10.97	12.49	11.96	12.67	13.06	13.77	15.28
	3H	9.62	10.27	10.73	11.37	12.90	13.28	13.92	14.39	15.03	16.56
	4H	9.81	10.42	10.93	11.52	13.06	13.71	14.32	14.83	15.43	16.96
	6H	9.92	10.48	11.05	11.59	13.14	13.98	14.54	15.11	15.65	17.20
	8H	9.92	10.45	11.05	11.58	13.12	14.05	14.58	15.18	15.70	17.25
	12H	9.88	10.39	11.02	11.51	13.07	14.08	14.58	15.21	15.70	17.26
4H	2H	10.17	10.77	11.29	11.88	13.42	12.35	12.96	13.48	14.07	15.60
	3H	11.18	11.68	12.31	12.82	14.37	13.83	14.34	14.96	15.47	17.02
	4H	11.45	11.91	12.59	13.04	14.61	14.35	14.81	15.48	15.93	17.50
	6H	11.56	11.96	12.71	13.11	14.67	14.69	15.09	15.84	16.24	17.80
	8H	11.57	11.94	12.71	13.08	14.65	14.79	15.17	15.94	16.30	17.88
	12H	11.53	11.87	12.69	13.01	14.60	14.84	15.17	16.00	16.32	17.91
8H	4H	11.88	12.26	13.03	13.39	14.97	14.46	14.83	15.60	15.97	17.55
	6H	12.14	12.45	13.30	13.63	15.20	14.88	15.19	16.05	16.37	17.94
	8H	12.18	12.45	13.35	13.61	15.20	15.03	15.30	16.20	16.45	18.05
	12H	12.16	12.39	13.33	13.55	15.18	15.11	15.35	16.29	16.50	18.13
12H	4H	11.88	12.22	13.04	13.37	14.95	14.42	14.75	15.58	15.90	17.49
	6H	12.20	12.47	13.37	13.63	15.22	14.88	15.15	16.05	16.31	17.90
	8H	12.26	12.49	13.43	13.65	15.28	15.03	15.26	16.20	16.42	18.05